EECE 218
Microcontrollers

Other microcontrollers
Just for information

- Intel 8051 family
  » Simple 8bit controller with timers, ports, etc.

- PIC family
  » 8-16 bit family, with varying features (from 8-pin controller all the way up)

- ATMELE family
  » High-performance RISC processors

- 16/32 bit processors
  » Motorola 68000 family: 16-32 bit processors, 16 bit data, 32 bit address, async bus, complex IT system, cache, large instruction set, floating point hardware, multitasking
Just for information

- 16/32 bit processors
  » Intel X86 family: 16-32 bit processors, 64 kbyte segmented architecture (later: 32-bit flat address space), complex instruction set, cache, floating point hardware, vector instructions
  » PowerPC family: 32 bit RISC processors, multi-issue instruction execution, pipeline, cache, etc.

- DSP chips: special purpose processors for signal processing, instructions for vector operations, high-speed communication on chip

- Novel directions:
  » Power management, security, communications